

	Thursday	Speaker	Title
		session chair	Evolution
		Santos	
8:00 AM	IIIB	Bhattacharya	Endosymbiotic Gene Transfer and the Evolution of the First Photosynthetic Eukaryotes
8:20 AM	IIIB	Blankenship	The Evolutionary Transition from Anoxygenic to Oxygenic Photosynthesis and How it Changed the Earth
8:40 AM	IIIB	Cardon	Phylogenetic diversity and physiology of independently-evolved lineages of desert green algae
9:00 AM	IIIB	Catling	Why O ₂ is required by complex life on habitable planets and its implications
9:20 AM	IIIB	Dorit	In Vitro and In Vivo Evolution of E. coli RNaseP
9:40 AM	IIIB	Fox	Ribosomal Protein Gene Clusters and Ribosome Evolution
10:00 AM	break		
10:20 AM	IIIB	Gaucher	Temperature history of the bacterial domain of life based on molecular and geologic records.
10:40 AM	IIIB	Knauth	AN ALTERNATIVE VIEW OF THE COURSE OF EVOLUTION WITH IMPLICATIONS FOR LIFE ELSEWHERE IN THE UNIVERSE
11:00 AM	IIIB	Marcot	PHYLOGENETIC APPROACHES TO THE EVOLUTION OF COMPLEX ORGANISMS
11:20 AM	IIIB	Miller	EPICONTINENTAL SEAS VERSUS OPEN-OCEAN SETTINGS: EXTINCTION AND DIVERSIFICATION IN TWO DIFFERENT WORLDS?
11:40 AM	IIIB	Patzkowsky	GEOGRAPHIC VARIABILITY OF RECOVERY FROM THE LATE ORDOVICIAN MASS EXTINCTION
12:00 PM	IIIB	Schultz	IMPACT AMBER: PLANT MATERIALS CAPTURED IN IMPACT-GENERATED GLASSES
12:20 PM	IIIB	Summons	The Permian-Triassic Extinction Event: Was It an Impact-related Phenomenon or Something Closer to Home?
12:40 PM	lunch		
1:00 PM			
1:20 PM		session chair	Extreme/Analog Environments
1:40 PM	IIIC	Bebout	NITROGEN FIXATION IN MODERN MICROBIAL MATS.
2:00 PM	IIIC	Blank	An Experimental Study of the Response of Microbes to Ballistic Impact
2:20 PM	IIIC	Blum	The Arsenic Cycle in Searles Lake, California: An Arsenic-Rich, Salt-Saturated Soda Lake.
2:40 PM	IIIC	Des Marais	Carbon biogeochemistry in sulfate-rich environments
3:00 PM	IIIC	Farmer	Microbial Fossilization Processes in Alkaline Hot-springs, with Implications for Astrobiological Exploration of the early Earth and Mars
3:20 PM	break		
3:40 PM	IIIC	Hoehler	Biological Energy Requirements as Constraints on Habitability
4:00 PM	IIIC	Newell	Magnetotactic bacteria: When is magnetotaxis advantageous?
4:20 PM	IIIC	Nichols	MICROBIAL ECOLOGY OF HIGH TEMPERATURE BIOTOPES
4:40 PM	IIIC	Pierson	Iron oxidation and deposition in cyanobacterial mats in a high iron thermal spring
5:00 PM	IIIC	Sumner	Depth Gradients in Neoarchean Ocean Chemistry and Microbialite Morphology
5:20 PM	IIIC	Ward	Molecular and geochemical analysis of hot spring cyanobacterial and Chloroflexus mats as stromatolite analogs
5:40 PM	break		
6:00 PM			
6:20 PM			
6:40 PM			
7:00 PM	banquet		
7:20 PM	David Brin		
7:40 PM			
8:00 PM			
8:20 PM			
8:40 PM			
9:00 PM			